

PEST ALERT

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Odonaspis serrata Ben-Dov (Hemiptera: Coccoomorpha: Diaspididae), a new bamboo-specialist armored scale for South Florida

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INTRODUCTION

In March 2026, an unknown *Odonaspis* Leonardi armored scale species was found heavily infesting stems and leaves of a stand of monastery bamboo, *Thyrsostachys siamensis* Gamble (Poaceae), in a botanical garden in South Florida (LIST 03232026-02370). Slide-mounted specimens were identified as *Odonaspis serrata* Ben-Dov (Hemiptera: Coccoomorpha: Diaspididae), a **new Western Hemisphere record**. This species was described from specimens from Sri Lanka and Vietnam (Ben-Dov, 1988) and was subsequently recorded indoors in Turkey (Ülgentürk et al., 2014). The genus *Odonaspis* specializes on grasses (Ben-Dov, 1988) and comprises 44 species worldwide (García Morales et al., 2016). *Odonaspis serrata* is a bamboo specialist and has been previously recorded to feed on *Arundinaria* Michx. (Ben-Dov, 1988), *Bambusa* Schreb. (Ben-Dov, 1988) and *T. siamensis* (Ülgentürk et al., 2014).

IDENTIFICATION

Odonaspis serrata is a large armored scale insect with the adult female reaching up to 2 mm in size. The scale cover, or test, is circular and conspicuously bright white with brown exuviae (these are incorporated into the cover from the first and second immature instars) (Fig. 1). While many armored scales have a dorsal cover that can be easily lifted to uncover the detached scale body, Odonaspidini produce a scale cover with well-developed dorsal and ventral wax tightly enveloping the body. The adult female body of *O. serrata* is turbinate and creamy white in color with the posterior pygidial (abdominal) segments darkening to a reddish-brown (Fig. 1). This species feeds on the stems of the host, most abundant around the nodes and underneath the leaf sheaths. Immatures and adults will pile atop one another in crowded, heavy infestations, using their long stylets (mouthparts) to reach the plant tissue. *Odonaspis* species cannot be identified to the species level without slide-mounted specimens (Fig. 2).

With the addition of *O. serrata*, there are now five recorded *Odonaspis* species in Florida. *Odonaspis floridana* Ben-Dov, *O. ruthae* Kotinsky and *O. saccharicaulis* (Zehntner) all feed on non-bamboo grasses and have been known in Florida for at least 50 years (Ben-Dov, 1988). Whether these species are adventive or not is unknown; the genus is thought to be Asian in origin, but some species are known only from the United States thus far (Ben-Dov, 1988; Normark et al., 2019). *Odonaspis greenii* Cockerell is an adventive species that also specializes on bamboo with slides in the Florida State Collection of Arthropods dating back to 1998. Other bamboo specialist armored scale species in Florida that may be confused with *Odonaspis* include two adventive species of *Froggattiella* Leonardi: *F. gigantochloae* Aono and *F. penicillata* Green. Once slide-mounted, *O. serrata* is most similar to *O. greenii* but can be differentiated from the latter based on the following character states (*O. greenii* in parentheses): an additional cluster of pores medial to the anterior spiracles (additional cluster absent), the anal opening and vulva placed less than three times the width of the anal opening apart (typically more than three times the width of the anal opening), the circular shape of the anal opening (anal opening oblong oval) and three marginal scleroses on the pygidium (two).



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NATURAL ENEMIES AND SURVEY

At present, no natural enemies have been formally recorded for *O. serrata*. Multiple parasitoid wasps (Chalcidoidea: Aphelinidae, Azotidae, Encyrtidae), thrips and beetles have been reared from this infestation and research to identify these is ongoing. Inspectors should pay attention to especially heavy infestations of scale insects where populations have burgeoned conspicuously. This may indicate an adventive species where biological control agents have not yet begun to adequately control the population.

REFERENCES

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Figure 1. An infestation of *Odonaspis serrata* Ben-Dov on *Thyrsostachys siamensis* Gamble in Miami, Florida. (a) A crowded cluster of nymphs and adult females with two scale bodies removed from inside their bright white tests (center) and (b) an adult female with her pygidium visible after the leaf sheath was peeled back and her scale cover was torn. Under the leaf sheaths was a heavy infestation with thousands of individuals piled atop one another. Photos by Erin C. Powell, FDACS-DPI.



Figure 2. Slide-mounted adult female *Odonaspis serrata* Ben-Dov. Photo by Erin C. Powell, FDACS-DPI.